Page 1 of 8



RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/804,014A

TIME: 09:31:35

Input Set : A:\Cura-221.app

Output Set: N:\CRF3\05072002\I804014A.raw

```
3 <110> APPLICANT: Li, Li
             Padigaru, Muralidhara
      5
             Vernet, Corine
      6
             Fernandes, Elma
              Shimkets, Richard
     7
     8
              Spaderna, Steven
             Majumder, Kumud
     9
    11 <120> TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoding Same
    13 <130> FILE REFERENCE: 15966-721 US
    15 <140> CURRENT APPLICATION NUMBER: 09/804,014A
C--> 16 <141> CURRENT FILING DATE: 2002-04-24
    18 <150> PRIOR APPLICATION NUMBER: 60/188,316
    19 <151> PRIOR FILING DATE: 2000-03-10
    21 <150> PRIOR APPLICATION NUMBER: 60/188,277
    22 <151> PRIOR FILING DATE: 2000-03-10
    24 <150> PRIOR APPLICATION NUMBER: 60/189,139
    25 <151> PRIOR FILING DATE: 2000-03-14
    27 <150> PRIOR APPLICATION NUMBER: 60/189,140
    28 <151> PRIOR FILING DATE: 2000-03-14
     30 <150> PRIOR APPLICATION NUMBER: 60/190,401
    31 <151> PRIOR FILING DATE: 2000-03-17
    33 <150> PRIOR APPLICATION NUMBER: 60/190,231
    34 <151> PRIOR FILING DATE: 2000-03-17
    36 <160> NUMBER OF SEQ ID NOS: 75
    38 <170> SOFTWARE: PatentIn Ver. 2.1
    40 <210> SEQ ID NO: 1
    41 <211> LENGTH: 1949
    42 <212> TYPE: DNA
    43 <213> ORGANISM: Homo sapiens
    45 <400> SEQUENCE: 1
    46 qtqttqcctc ttqcaatqaa aaacagaaac acccaaggca aaatggtaat ggcctgtcca 60
    47 ctgaaaagca gaagccccac atgagcaagc tgcaggcagc tggcaggcac cgattcctgc 120
    48 tqtcctqttt tqqatqctat ctaacatctt catgttcaac ccagagaaga aacatcccgc 180
    49 cqttqccctq qqqccctctc atcccacagc aggtttcgag ccttccccag ccctcgggat 240
    50 ggacaaccct tgagaagcag aggtcaggga accctgaccc cgccaccctt gcccaggcca 300
    51 tecgetgeee teacaggeae agacagaagg cetetgteeg tggccaggge actecatggg 360
    52 gaagaaacag geeetgttee etecetgete accaetteae eeageteage tggeacaaaa 420
    53 atactgccac cacacettca ecetgectag eccaacetgg cagggeeteg gagtageetg 480
    54 ccaqctaaaa tacgggttgc ccagataact gtgaatgtca gataagaatc ttctgggacg 540
    55 agtatgtccc atgccatatt tgggacatac ttacactaat aaatttctgt ttatctgaaa 600
    56 ctcaaatttg cctgggcgtc ctgtactttt cttaactaaa tttggtgcct ctacacacaa 660
    57 ggtccctggg gtggggggc acaggagcaa gccccttccc aggctgggtc cctgccggca 720
```

58 totoccacag gocaggactg gocaccoaga tggagocogt gocaggoago oggogacaga 780

Input Set : A:\Cura-221.app

Output Set: N:\CRF3\05072002\I804014A.raw

```
59 cggacaaagg ctgctcagga gacactgcac accttcctct ttcttgtctg ggggctcaag 840
60 aatccagacg cccacctccc cgagcgagca ccaagacagg aagccaacct gcaatgccca 900
61 qcccactqcq accacagggc tctqccgggg tcctqccgga acccagggtt ccggtccaga 960
62 agccagggat aaatgccgct tctcctatag ggacagtcag agtagagagg gggaggccta 1020
63 cagteteace tgeagggaga ggaagteete ggggegggea egtgggggge etgaeagete 1080
64 cgagcacacc cggccacagt gaccacggac tgcacacgca gaagcagtct ggatcccacg 1140
65 cqtqqctqtq ctqccaqcaq acaqcacca acctcccatg ctcctcatca caggaaaaga 1200
66 gaccagcagc atctctgcca ggcatggtgg ggcccctccg ccacagccta ggagtccagg 1260
67 ccacccaccc tcacagcact ggagtgcgtg ggtcagtgag gccctgggac gggcctgcgg 1320
68 gcacaggggg acagagggtt cggggagggc ggcgcagccc cacgaagggc tcctcccaag 1380
69 cctgtgtggg gcccagggga gctgcacctc cgggatggga caaggcaggg tcctggcttt 1440
70 catcagccac agcacagctg ccacagggca caaaaggacg gctgagagac gaggtcctca 1500
71 cccacaccat qqqqaaaccq aggcatqqqa aggttqqaqq gggggcaqcc aggctqqcqc 1560
72 caagatcaca ggcaggcagg cctgaaggcc gagcaatgca gccactagga aggcatgagt 1620
73 tggggtcggg gtgtccccag ccctagagcc caaagctgcc accactcccc acccccaaca 1680
74 tgggtggggg cagggagage tettettggg accaatecea aaaccatgeg cagtgggeec 1740
75 ggctggagcc caggcagcag gcatcctctc tgccagggtg agaaactggg ccctcatgtc 1800
76 aggctggaag gggggtctcc aggtggggag aaagaacagg aaggaaccag gccctccct 1860
77 cgagggaccc cgcacccagg ctgctccctg agcgtggggt gggctcagcg caattgggtc 1920
78 cagacacctg tecegggeag cegtetega
81 <210> SEQ ID NO: 2
82 <211> LENGTH: 298
83 <212> TYPE: PRT
84 <213> ORGANISM: Homo sapiens
86 <400> SEQUENCE: 2
87 Met Glu Pro Val Pro Gly Ser Arg Gln Thr Asp Lys Gly Cys Ser
                                                            15
                                        10
90 Gly Asp Thr Ala His Leu Pro Leu Ser Cys Leu Gly Ala Gln Glu Ser
                20
                                    25
93 Arg Arg Pro Pro Pro Arg Ala Ser Thr Lys Thr Gly Ser Gln Pro Ala
            35
                                40
96 Met Pro Ser Pro Leu Arg Pro Gln Gly Ser Ala Gly Val Leu Pro Glu
                            55
99 Pro Arg Val Pro Val Gln Lys Pro Gly Ile Asn Ala Ala Ser Pro Ile
                         70
                                             75
102 Gly Thr Val Arg Val Glu Arg Gly Arg Pro Thr Val Ser Pro Ala Gly
105 Arg Gly Ser Pro Arg Gly Gly His Val Gly Gly Leu Thr Ala Pro Ser
                100
                                    105
108 Thr Pro Gly His Ser Asp His Gly Leu His Thr Gln Lys Gln Ser Gly
            115
                                120
                                                    125
111 Ser His Ala Trp Leu Cys Cys Gln Gln Thr Ala Pro Asn Leu Pro Cys
                            135
                                                140
114 Ser Ser Ser Gln Glu Lys Arg Pro Ala Ala Ser Leu Pro Gly Met Val
                        150
                                            155
115 145
117 Gly Pro Leu Arg His Ser Leu Gly Val Gln Ala Thr His Pro His Ser
                                        170
                    165
120 Thr Gly Val Arg Gly Ser Val Arg Pro Trp Asp Gly Pro Ala Gly Thr
121
                180
```

Input Set : A:\Cura-221.app

Output Set: N:\CRF3\05072002\I804014A.raw

```
123 Gly Gly Gln Arg Val Arg Gly Gly Arg Arg Ser Pro Thr Lys Gly Ser
                                200
126 Ser Gln Ala Cys Val Gly Pro Arg Gly Ala Ala Pro Pro Gly Trp Asp
                            215
                                                220
129 Lys Ala Gly Ser Trp Leu Ser Ser Ala Thr Ala Gln Leu Pro Gln Gly
                                            235
130 225
                        230
132 Thr Lys Gly Arg Leu Arg Asp Glu Val Leu Thr His Thr Met Gly Lys
                                        250
                    245
135 Pro Arg His Gly Lys Val Gly Gly Ala Ala Arg Leu Ala Pro Arg
                                    265
136
                260
138 Ser Gln Ala Gly Arg Pro Glu Gly Arg Ala Met Gln Pro Leu Gly Arg
                                280
139
            275
141 His Glu Leu Gly Ser Gly Cys Pro Gln Pro
142
        290
145 <210> SEQ ID NO: 3
146 <211> LENGTH: 2092
147 <212> TYPE: DNA
148 <213> ORGANISM: Homo sapiens
150 <400> SEQUENCE: 3
151 tgcccgggca ggtgggcgtg ttgcctcttg caatgaaaaa cagaaacacc caaggcaaaa 60
152 tgqtaatqqc ctqtccactq aaaaqcagaa qccccacatg agcaagctgc aggcagctgg 120
153 caggeacega tteetgetgt cetgttttgg atgetateta acatetteat gtteaaceca 180
154 gagaagttte atcccgccgt tgccctgggg ccctctcatc ccacagcagg tttcaagcct 240
155 tocccageoc tegggatgga caaccettga gaagcagagg teagggaace etgaceeege 300
156 caccettgee caggecatee getgeeetea caggeacaga cagaaggeet etgteegtgg 360
157 ccagggcact ccatggggaa gaaacaggcc ctgttccctc cctgctcacc acttcaccca 420
158 gctcagctgg cacaaaaata ctgccaccac accttcaccc tgcctagccc aacctggcag 480
159 ggcctcggag tagcctgcca gctaaaatac gggttgccca gataactgtg aatgtcagat 540
160 aagaatette tgggacgagt atgteecatg ceatatttgg gacataetta caetaataaa 600
161 tttctqttta tctqaaactc aaatttqcct gggcqtcctg tacttttctt aactaaattt 660
162 ggtgcctcta cacacaaggt ccctggggtg ggggggcaca ggagcaagcc ccttcccagg 720
163 ctgggtccct gccggcatct cccacaggcc aggactggcc acccagatgg agcccgtgcc 780
164 aggcageegg egacagaegg acaaaggetg eteaggagae aetgcaeace tteetette 840
165 ttgtctgggg gctcaagaat ccagacgccc acctccccga gcgagcacca agacaggaag 900
166 ccaacctgca atgcccaqcc cactgcgacc acagggctct gccggggtcc tgccggaacc 960
167 cagggttccg gtccagaagc cagggataaa tgccgcttct cctataggga cagtcagagt 1020
168 agaqaqqqqq aggcctacag tctcacctgc agggagagga agtcctcggg gcgggcacgt 1080
169 ggggggcctg acagctccga gcacacccgg ccacagtgac cacggactgc acacgcagaa 1140
170 gcagtctgga tcccacgcgt ggctgtgctg ccagcagaca gcacccaacc tcccatgctc 1200°
171 ctcatcacag gaaaagagac cagcagcatc tctgccaggc atggtggggc ccctccgcca 1260
172 cagcctagga gtccaggcca cccacctca cagcactgga gtgcgtgggt cagtgaggcc 1320
173 ctgggacggg cctgcgggca cagggggaca gagggttcgg ggagggcggc gcagccccac 1380
174 gaagggetee teccaageet gtgtggggee caggggaget geaceteegg gatgggacaa 1440
175 ggcagggtcc tggctttcat cagccacagc acagctgcca cagggcacaa aaggacggct 1500
176 gagagacgag gtcctcaccc acaccatggg gaaaccgagg catgggaagg ttggaggggg 1560
177 ggcagccagg ctggcgccaa gatcacaggc aggcaggcct gaaggccgag caatgtagcc 1620
178 actaggaagg catgagttgg ggtcggggtg tccccagccc tagagcccaa agctgccacc 1680
179 actocccacc cocaacatgg gtgggggcag ggagagetet tettgggace aatoccaaaa 1740
180 ccatgcqcaq tqqqcccqqc tqqaqcccag gcagcaggca tcctctctgc cagggtgaga 1800
```

Input Set : A:\Cura-221.app

Output Set: N:\CRF3\05072002\I804014A.raw

```
181 aactgggccc tcatgtcagg ctggaagggg ggtctccagg tggggagaaa gaacaggaag 1860
183 ctcagcgcac ctgggtccac acagggacct ggcaaagctg tagaggctgt gggaggggct 1980
184 qccqctqqat qgggtacagg cccgccgccc cttctgagag gacaggggag gcccagagct 2040
185 gctgatgcgg actgaccgcc catctcacag acgggatgta gagggctccc cc
188 <210> SEQ ID NO: 4
189 <211> LENGTH: 283
190 <212> TYPE: PRT
191 <213> ORGANISM: Homo sapiens
193 <400> SEQUENCE: 4
194 Met Glu Pro Val Pro Gly Ser Arg Arg Gln Thr Asp Lys Gly Cys Ser
                                        10
195
     1
197 Gly Asp Thr Ala His Leu Pro Leu Ser Cys Leu Gly Ala Gln Glu Ser
200 Arg Arg Pro Pro Pro Arg Ala Ser Thr Lys Thr Gly Ser Gln Pro Ala
            35
203 Met Pro Ser Pro Leu Arg Pro Gln Gly Ser Ala Gly Val Leu Pro Glu
        50
                            55
206 Pro Arg Val Pro Val Gln Lys Pro Gly Ile Asn Ala Ala Ser Pro Ile
                        70
                                            75
209 Gly Thr Val Arg Val Glu Arg Gly Arg Pro Thr Val Ser Pro Ala Gly
                    85
212 Arg Gly Ser Pro Arg Gly Gly His Val Gly Gly Leu Thr Ala Pro Ser
                                   105
215 Thr Pro Gly His Ser Asp His Gly Leu His Thr Gln Lys Gln Ser Gly
                               120
           115
218 Ser His Ala Trp Leu Cys Cys Gln Gln Thr Ala Pro Asn Leu Pro Cys
                           135
221 Ser Ser Ser Gln Glu Lys Arg Pro Ala Ala Ser Leu Pro Gly Met Val
                       150
                                           155
224 Gly Pro Leu Arg His Ser Leu Gly Val Gln Ala Thr His Pro His Ser
                   165
                                       170
227 Thr Gly Val Arg Gly Ser Val Arg Pro Trp Asp Gly Pro Ala Gly Thr
               180
                                   185
230 Gly Gly Gln Arg Val Arg Gly Gly Arg Arg Ser Pro Thr Lys Gly Ser
           195
                               200
233 Ser Gln Ala Cys Val Gly Pro Arg Gly Ala Ala Pro Pro Gly Trp Asp
                           215
236 Lys Ala Gly Ser Trp Leu Ser Ser Ala Thr Ala Gln Leu Pro Gln Gly
                       230
                                           235
237 225
239 Thr Lys Gly Arg Leu Arg Asp Glu Val Leu Thr His Thr Met Gly Lys
                   245
                                       250
242 Pro Arg His Gly Lys Val Gly Gly Ala Ala Arg Leu Ala Pro Arg
               260
                                   265
243
245 Ser Gln Ala Gly Arg Pro Glu Gly Arg Ala Met
           275
249 <210> SEQ ID NO: 5
250 <211> LENGTH: 1011
251 <212> TYPE: DNA
```

Input Set : A:\Cura-221.app

Output Set: N:\CRF3\05072002\1804014A.raw

```
252 <213> ORGANISM: Homo sapiens
254 <400> SEQUENCE: 5
255 atctcccaca ggccaggact ggccacccag atggagcccg tgccaggcag ccggcgacag 60
256 acggacaaag gctgctcagg agacactgca caccttcctc tttcttgtct gggggctcaa 120
257 gaatccagac qcccacctcc ccqaqcqaqc accaagacag gaaqccaacc tgcaatqccc 180
258 ageceactge gaecacaggg etetgeeggg gteetgeegg aacceagggt teeggteeag 240
259 aagccaggga taaatgccgc ttctcctata gggacagtca aggtagagag ggggaggcct 300
260 acagtotoac otgoagggag aggaagtoot oggggogggo acgtgggggg cotgacagot 360
261 ccgagcacac ccggccacag tgaccacgga ctgcacacgc agaagcagtc tggatcccac 420
262 gcgtggctgt gctgccagca gacagcaccc aacctcccat gctcctcatc acaggaaaag 480
263 agaccagcag catctctgcc aggcatggtg gggcccctcc gccacagcct aggagtccag 540
264 gccacccacc ctcacagcac tggagtgcgt gggtcagtga ggccctggga cgggcctgcg 600
265 ggcacagggg gacagagggt tcggggaggg cggcgcagcc ccacgaaggg ctcctcccaa 660
266 gcctgtgtgg ggcccagggg agctgcacct ccgggatggg acaaggcagg gtcctggctt 720
267 tcatcageca cageacaget gecacaggge acaaaaggae ggetgagaga egaggteete 780
268 acccacacca tggggaaacc gaggcatggg aaggttggag ggggggcagc caggctggcg 840
269 ccaagatcac aggcaggcag gcctgaaggc cgagcaatgc agccactagg aaggcatgag 900
270 ttggggtcgg ggtgtcccca gccctagagc ccaaagctgc caccactccc cacccccaac 960
271 atgggtgggg gcagggagag ctcttcttgg gaccaatccc aaaaccatgc g
274 <210> SEQ ID NO: 6
275 <211> LENGTH: 298
276 <212> TYPE: PRT
277 <213> ORGANISM: Homo sapiens
279 <400> SEQUENCE: 6
280 Met Glu Pro Val Pro Gly Ser Arg Arg Gln Thr Asp Lys Gly Cys Ser
283 Gly Asp Thr Ala His Leu Pro Leu Ser Cys Leu Gly Ala Gln Glu Ser
                 20
                                     25
286 Arg Arg Pro Pro Pro Arg Ala Ser Thr Lys Thr Gly Ser Gln Pro Ala
                                 40
289 Met Pro Ser Pro Leu Arg Pro Gln Gly Ser Ala Gly Val Leu Pro Glu
290
                             55
292 Pro Arg Val Pro Val Gln Lys Pro Gly Ile Asn Ala Ala Ser Pro Ile
293 65
                         70
                                             75
295 Gly Thr Val Lys Val Glu Arg Gly Arg Pro Thr Val Ser Pro Ala Gly
                     85
                                         90
298 Arg Gly Ser Pro Arg Gly Gly His Val Gly Gly Leu Thr Ala Pro Ser
                                    105
299
                100
301 Thr Pro Gly His Ser Asp His Gly Leu His Thr Gln Lys Gln Ser Gly
302
                                120
                                                    125
304 Ser His Ala Trp Leu Cys Cys Gln Gln Thr Ala Pro Asn Leu Pro Cys
305
                            135
                                                140
307 Ser Ser Ser Gln Glu Lys Arg Pro Ala Ala Ser Leu Pro Gly Met Val
                        150
310 Gly Pro Leu Arg His Ser Leu Gly Val Gln Ala Thr His Pro His Ser
311
                    165
                                        170
313 Thr Gly Val Arg Gly Ser Val Arg Pro Trp Asp Gly Pro Ala Gly Thr
                180
                                    185
316 Gly Gly Gln Arg Val Arg Gly Gly Arg Arg Ser Pro Thr Lys Gly Ser
```

Input Set : A:\Cura-221.app

Output Set: N:\CRF3\05072002\1804014A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the $\langle 220 \rangle$ to $\langle 223 \rangle$ fields of each sequence which presents at least one n or Xaa.

Seq#:40; Xaa Pos. 20

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/804,014A

DATE: 05/07/2002 TIME: 09:31:36

Input Set : A:\Cura-221.app

Output Set: N:\CRF3\05072002\1804014A.raw

L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:2119 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:16